

A SERIALY REUSABLE VIRTUAL MACHINE

ABSTRACT OF THE DISCLOSURE

In a virtual machine environment, a method and apparatus for the use of multiple heaps to retain persistent data and transient data wherein the multiple heaps enables a single virtual machine to be easily resettable, thus avoiding the need to terminate and start a new Virtual Machine as well as enabling a single virtual machine to retain data and objects across multiple applications, thus avoiding the computing resource overhead of relinking, reloading, reverifying, and recompiling classes. The memory hierarchy includes a System Heap, a Middleware Heap and a Transient Heap. The use of three heaps enables garbage collection to be selectively targeted to one heap at a time in between applications, thus avoiding this overhead during the life of an application.